

Patent App. Ser. No. 10/768,728
Eclipse Group Docket No. INM08007USU

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1-12. (Cancelled)

13. (Presently Amended) A method comprising the steps of:

a.——surgically attaching a first cannula to the aorta of a patient's heart,
the first cannula being empty of any liquid;

b.——surgically attaching a second cannula to the left atrium of the
patient's heart, the second cannula being empty of any liquid;

during attachment, clamping the first and second cannulae at an end
opposite the surgical connection;

during attachment, purging the first and second cannulae of air;

e.——interconnecting the first and second cannulae with a first sterile
atrial-arterial shunt, the shunt being empty of any liquid, wherein:

i.——the shunt comprises a section of translucent tubing
terminated at a first end by a first cannula adapter and at a second end by a second
cannula adapter;

ii.——each cannula adapter has a vent, said vent being sealable
for selectively opening and closing the vent for priming purposes; and

iii.——the first and second cannula adapters are respectively
connected to the first and second cannulae;

d.——priming the shunt with the patient's own blood and with no other
fluid by allowing the blood to fill the shunt to remove air through open vents;

e.——inserting the shunt tubing into a first peristaltic pump, wherein the
first peristaltic pump is one of a medical facility's existing peristaltic pumps from
a cardiopulmonary bypass machine; and

f.——activating the first peristaltic pump to pump blood through the
shunt and in parallel to the patient's heart's pumping action;

~~g.——whereby steps a. through f. perform pump-assisted myocardial
revascularization without cardiopulmonary bypass.~~

14. (Original) The method of Claim 13 wherein the step of priming the shunt to remove

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air comprises the sub-steps of: opening the vent on the first cannula adapter; allowing blood to flow through the second cannula from the left atrium through the tubing to the first cannula adapter, wherein the flowing blood forces the air out of the tubing and through the vent on the first cannula adapter; and closing the vent on the first cannula adapter.

15. (Original) The method of Claim 13 wherein: the section of translucent tubing is no longer than two meters, to reduce the amount of blood required to fill the shunt for use in pump-assisted myocardial revascularization; and the method further comprises the step, prior to step e), of moving the first peristaltic pump within one meter of the patient.

16. (Previously Presented) The method of Claim 13 further comprising the steps of:

- a. surgically attaching a third cannula to the pulmonary artery of the patient's heart;
- b. surgically attaching a fourth cannula to the right atrium of the patient's heart;
- c. interconnecting the third and fourth cannulae with a second sterile atrial-arterial shunt generally identical to the first shunt;
- d. priming the second shunt with the patient's own blood to remove air;
- e. inserting the second shunt's tubing into a selected one of the first peristaltic pump or a second peristaltic pump that is also one of a medical facility's existing peristaltic pumps from a cardiopulmonary bypass machine; and
- f. activating the selected one of the first peristaltic pump or the second peristaltic pump to pump blood through the second shunt and in parallel to the pumping action of the patient's heart.

17. (Original) The method of Claim 16 wherein: the section of translucent tubing of each shunt is no longer than two meters, to reduce the amount of blood required to fill the shunts for use in pump-assisted myocardial revascularization; and the method further comprises the step of moving the peristaltic pump(s) within one meter of the patient.

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18-19. (Cancelled)

20. (Presently Amended) A method comprising the steps of:

a.——surgically attaching a first cannula to the aorta of a patient's heart,
the first cannula being empty of any liquid;

b.——surgically attaching a second cannula to the left atrium of the
patient's heart, the second cannula being empty of any liquid;

during attachment, clamping the first and second cannulae at an end
opposite the surgical connection;

during attachment, purging the first and second cannulae of air;

c.——interconnecting the first and second cannulae with a first sterile
atrial-arterial shunt, the shunt being empty of any liquid, wherein:

i.——the shunt comprises a section of translucent tubing
terminated at a first end by a first cannula adapter and at a second end by a second
cannula adapter;

ii.——each cannula adapter has a vent, said vent being sealable
for selectively opening and closing the vent for priming purposes; and

iii.——the first and second cannula adapters are respectively
connected to the first and second cannulae;

d.——priming the first shunt with the patient's own blood and with no
other liquid to remove air;

e.——inserting the first shunt tubing into a peristaltic pump; and

f.——activating the peristaltic pump to pump blood through the shunt
and in parallel to the patient's heart's pumping action;

g.——limiting the length of the section of translucent tubing to no more
than two meters to reduce the amount of the patient's blood required to fill the
shunt for use in pump-assisted myocardial revascularization; and

h.——prior to the step of activating the pump, f.——moving the peristaltic
pump within one meter of the patient;

i.——~~whereby steps a. through h. perform pump-assisted myocardial
revascularization without cardiopulmonary bypass.~~